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axmi009	MNSYKNKNEYEMLDALRINSNMSNCYPRYPLAKDPQMTMRNTNYKEWLNMCDSN	
crylAa	MDNNPNINECIPYNCLSNPEVEVLGG	
cry1Ac	MDNNPNINECIPYNCLSNPEVEVLGG	
cry1Ca	MEEN-NQNQCIPYNCLSNPEEVLLDG	
cry1Ia	MKLKNQDKHQSFSSNAKVDKISTDSLKNETDIELQNINHEDCLKMSEYE	
cry3Aa1	MIRKGGRKMNPNNRSEHDTIKTTENNEVPTNHVQYPLAETPNPTLEDLNYKEFLRMTADN	
сту3Ва	MIRMGGRKMNPNNRSEYDTIKVTPNSELPTNHNQYPLADNPNSTLEELNYKEFLRMTADN	
cry3Bb	MNPNNRSEHDTIKVTPNSELQTNHNQYPLADNPNSTLEELNYKEFLRMTEDS	
cry4Aa	MNPYQNKNEYETLNASQKKLNISNNYTRYPIENSPKQLLQSTNYKDWLNMCQQN	
cry6Aa	MIIDSKTTLPRHSLIHTIKLNSNKKYGPGDMTNGNQFIISKQE	
cry7Aa	TQKALSPSLKNMNYQDFLSITERE	
cry8Aa	MSPNNQNEYEIIDATPSTSVSSDSNRYPFANEPTDALQNMNYKDYLKMSGGE	
cry10Aa	MNPYQNKNEYEIFNAPSNGFSKSNNYSRYPLANKPNQPLKNTNYKDWLNVCQDN	
cry16Aa	MHYYGNRNEYDILNASSNDSNMSNTYPRYPLANPQQDLMQNTNYKDWLNVCEGY	
cry19Ba	MNSYQNKNEYEILDAKRNTCHMSNCYPKYPLANDPQMYLRNTHYKDWINMCEEA	
cry24Aa	FADDPNAVMKNGNYKDWVNECEG-	
cry25Aa	MNPYQNKSECEILNAPLNNINMPNRYPFANDPNAVMKNGNYKDWLNECDG-	50
cry40Aa1	FANDRDMSTMSFNDCQG-	43
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axmi009	TQFIGDISTYSSPEAALSVRDAVLTGINSVGTILSNLGVPLASQSFGIISRLIGILWAGP	
cry1Aa	ERIETGYTPIDISLSLTQFLLSEF-VPGAGFVLGLVDIIWGIFGPSQ	
crylAc	ERIETGYTPIDISLSLTQFLLSEF-VPGAGFVLGLVDIIWGIFGPSQ	
cry1Ca	ERISTGNSSIDISLSLVQFLVSNF-VPGGGFLVGLIDFVWGIVGPSQ	
cry1Ia	NVEPFVSASTIQTGIGIAGKILGTLGVPFAGQVASLYSFILGELWP-K	
cry3Aa1	NTEALDSSTTKDVIQKGISVVGDLLGVVGFPFGGALVSFYTNFLNTIWPSE	
cry3Ba	STEVLDSSTVKDAVGTGISVVGQILGVVGVPFAGALTSFYQSFLNAIWPSD	
cry3Bb	STEVLDNSTVKDAVGTGISVVGQILGVVGVPFAGALTSFYQSFLNTIWPSD	
cry4Aa	QQYGGDFETFIDSGELSAYTIVVGTVLTGFGFTTPLGLALIGFGTLIPVLFPA	
cry6Aa	WATIGAYIQTGLGLPVNEQQLRTHVNLSQDISIPSDFSQLYDVYCSD	
cry7Aa	QPEALASGNTAINTVVSVTGATLSALGVPGASFITNFYLKIAGLLWPEN	
cry8Aa	NPELFGNPETFISSSTIQTGIGIVGRILGALGVPFASQIASFYSFIVGQLWPSK	
cry10Aa	QQYGNNAGNFASSETIVGVSAGIIVVGTMLGAFAAP-VLAAGIISFGTLLPIFWQG	109
cry16Aa	HIENPREASVRAGLGKGLGIVSTIVGFFGGSIILDTIGLFYQISELLWPED	
cry19Ba	SYASSGPSQLFKVGGSIVAKILGMIPEVGPLLSWMVSLFWPTI	
cry24Aa	SNISPSPAAAITSKIVSIVLKTLAKAVASSLADSIKSSLGISKTIT	
cry25Aa	ITPSIFGTLGVLASIVISTINLATSPSIGDAFALVSSIGEYWPETK	
cry40Aa1	ISWDEIWESAETITSIGIDLIEFLMEPSLGGINTLFSIIGKLIPTN	89
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axmi009	DPFEALMVLVEELIKKSIDQRVRENALRELEGLQGIMRLYQTRLQAWLVNKN	
cry1Aa	WDAFPVQIEQLINQRIEEFARNQAISRLEGLSNLYQIYAESFREWEADPT	
cry1Ac	WDAFLVQIEQLINQRIEEFARNQAISRLEGLSNLYQIYAESFREWEADPT	
cry1Ca	WDAFLVQIEQLINERIAEFARNAAIANLEGLGNNFNIYVEAFKEWEEDPN	121
cry1Ia	GKNQWEIFMEHVEEIINQKISTYARNKALTDLKGLGDALAVYHDSLESWVGNRN	150
cry3Aa1	DPWKAFMEQVEALMDQKIADYAKNKALAELQGLQNNVEDYVSALSSWQKNPVS-	
cry3Ba	ADPWKAFMAQVEVLIDKKIEEYAKSKALAELQGLQNNFEDYVNALDSWKKAPVN-	
cry3Bb	ADPWKAFMAQVEVLIDKKIEEYAKSKALAELQGLQNNFEDYVNALNSWKKTPLS-	157
cry4Aa	QDQSNTWSDFITQTKNIIKKEIASTYISNANKILNRSFNVISTYHNHLKTWENNP	
cry6Aa	KTSAEWWNKNLYPLIIKSANDIASYGFKVAGDPSIKKDGYFKKLQDELDNIVDNNS	
cry7Aa	GKI-WDEFMTEVEALIDQKIEEYVRNKAIAELDGLGSALDKYQKALADWLGKQD	149
cry8Aa	SVDIWGEIMERVEELVDQKIEKYVKDKALAELKGLGNALDVYQQSLEDWLENRN	160
cry10Aa	SDPANVWQDLLNIGG-RPIQEIDKNIINVLTSIVTPIKNQLDKYQEFFDKWEPAR	
cry16Aa	DTQQYTWQDIMNHVEDLIDKRITEVIRGNAIRTLADLQGKVDDYNNWLKKWKDDPK	161
cry19Ba	EEKNTVWEDMIKYVANLLKQELTNDTLNRATSNLSGLNESLNIYNRALAAWKQNKN	153
cry24Aa	ENNVSQVSMVQVHQIINRRIQETILDLGES-SLNGLVAIYNRDYLGALEAWNNN	
cry25Aa	TSFPLSVADVNRLIREALDQNAINRATGKFNG-LMDTYNTVYLKNLQDWYDTRIPA	
cry40Aa1	HQSVSALSICDLLSIIRKEVADSVLSDAICRFLDGKLKNYREYYLPYLEAWLKDGKPL	
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axmi009	DDNRRALVTQYAIVDNFFEKNMPKFKERNFEILLLPVYAQAANLHL 212
cry1Aa	NPALREEMRIQFNDMNSALTTAIPLLAVQNYQVPLLSVYVQAANLHL 169
cry1Ac	NPALREEMRIQFNDMNSALTTAIPLFAVQNYQVPLLSVYVQAANLHL 169
cry1Ca	NPATRTRVIDRFRILDGLLERDIPSFRISGFEVPLLSVYAQAANLHL 168
cry1Ia	NTRARSVVKSQYIALELMFVQKLPSFAVSGEEVPLLPIYAQAANLHL 197
cry3Aa1	SRNPHSQGRIRELFSQAESHFRNSMPSFAISGYEVLFLTTYAQAANTHL 213
сту3Ва	LRSRRSQDRIRELFSQAESHFRNSMPSFAVSKFEVLFLPTYAQAANTHL 214
cry3Bb	LRSKRSQDRIRELFSQAESHFRNSMPSFAVSKFEVLFLPTYAQAANTHL 206
cry4Aa	NPQNTQDVRTQIQLVHYHFQNVIPELVNSCPPNPSDCDYYNILVLSSYAQAANLHL 218
cry6Aa	DDDAIAKAIKDFKARCGILIKEAKQYEEAAKNIVTSLDQ 185
cry7Aa	DPEAILSVATEFRIIDSLFEFSMPSFKVTGYEIPLLTVYAQAANLHL 196
cry8Aa	DARTRSVVSNQFIALDLNFVSSIPSFAVSGHEVLLLAVYAQAVNLHL 207
cry10Aa	THANAKAVHDLFTTLEPIIDKDLDMLKNNASYRIPTLPAYAQIATWHL 211
cry16Aa	STGNLSTLVTKFTALDSDFNGAIRTVNNQGSPGYELLLLPVYAQIANLHL 211
cry19Ba	NFASGELIRSYINDLHILFTRDIQSDFSLGGYETVLLPSYASAANLHL 201
cry24Aa	KSNINYQTNVAEAFKTVEREFFTKLKGIYRTSSSQITLLPTFTQAANLHL 199
cry25Aa	NPQGDSQLREAARRSLEEIERDFRKALAGEFAEAGSQIVLLPIYAQAANIHL 203
cry40Aa1	Q-KTNNSDIGQLVKYFELSERDFNEILGGSLARNNAQILLLPYFCASCKCQL 198
	1
axmi009	ILLRDADYFGAQWQLGDDEIRDNYIRLQGLIREYKDHCI 251
cry1Aa	SVLRDVSVFGQRWGFDAATINSRYNDLTRLIGNYTDYAV 208
cry1Ac	SVLRDVSVFGQRWGFDAATINSRYNDLTRLIGNYTDYAV 208
cry1Ca	AILRDSVIFGERWGLTTINVNENYNRLIRHIDEYADHCA 207
cry1Ia	LLLRDASIFGKEWGLSSSEISTFYNRQVERAGDYSDHCV 236
cry3Aa1	FLLKDAQIYGEEWGYEKEDIAEFYKRQLKLTQEYTDHCV 252
cry3Ba	LLLKDAQVFGEEWGYSSEDIAEFYQRQLKLTQQYTDHCV 253
cry3Bb	LLLKDAQVFGEEWGYSSEDVAEFYHRQLKLTQQYTDHCV 245
cry4Aa	TVLNQAVKFEAYLKNNRQFDYLEPLPTAIDYYPVLTKAIEDYTNYCV 265
cry6Aa	FLHGDQKKLEGVINIQKRLKEVQTALNQAHGESS 219
cry7Aa	ALLRDSTLYGDKWGFTQNNIEENYNRQKKRISEYSDHCT 235
cry8Aa	LLLRDASIFGEEWGFTPGEISRFYNRQVQLTAEYSDYCV 246
cry10Aa	NLLKHAATYYNIWLQNQGINPSTFNSSNYYQGYLKRKIQEYTDYCI 257
cry16Aa	LLLRDAQIYGDKWWSARANARDNYYQIQLEKTKEYTEYCI 251
cry19Ba	LLLRDVAIYG-KELGYPSTDVEFYYNEQKYYTEKYSNYCV 240
cry24Aa	SMLRDAVMYQEGWNLQSHINYSKELDDALEDYTNYCV 236
cry25Aa	LILKDAMQFRTDLGLIRPVGVPITTSAEDPFESEFLLRIKKYTDHCI 250
cry40Aa1	LLLRDAVQYEEQWFPFLSAENVRSELISPNSGCDFTGDYYERLKCKIAEYTDYCE 253
CIYTONAI	: .
axmi009	TFYNQGLNQFNRSNAQDWVSFNRFRTDMTLTVLDLAILFPNYDPRRYPLA 301
cry1Aa	RWYNTGLERVWGPDSRDWVRYNQFRRELTLTVLDIVALFSNYDSRRYPIR 258
cry1Ac	RWYNTGLERVWGPDSRDWVRYNQFRRELTLTVLDIVALFPNYDSRRYPIR 258
cry1Ca	NTYNRGLNNLPKSTYQDWITYNRLRRDLTLTVLDIAAFFPNYDNRRYPIQ 257
cry1Ia	KWYSTGLNNLRGTNAESWVRYNQFRRDMTLMVLDLVALFPSYDTQMYPIK 286
cry3Aal	KWYNVGLDKLRGSSYESWVNFNRYRREMTLTVLDLIALFPLYDVRLYPKE 302
•	NWYNVGLNSLRGSTYDAWVKFNRFRREMTLTVLDLIVLFPFYDVRLYSKG 303
cry3Ba cry3Bb	NWYNVGLNGLRGSTYDAWVKFNRFRREMTLTVLDLIVLFPFYDIRLYSKG 295
	TTYKKGLNLIKTTPDSNLDGNINWNTYNTYRTKMTTAVLDLVALFPNYDVGKYPIG 321
cry4Aa	PAHKELLEKVKNLKTTLERTIKAEQDLEKKVEYSFLLGPLLGFVVYEILEN- 270
cry6Aa	
cry7Aa	KWYNSGLSRLNGSTYEQWINYNRFRREMILMALDLVAVFPFHDPRRYSME 285
cry8Aa	KWYKIGLDKLKGTTSKSWLNYHQFRREMTLLVLDLVALFPNYDTHMYPIE 296
cry10Aa	QTYNAGLTMIRTNTNATWNMYNTYRLEMTLTVLDLIAIFPNYDPEKYPIG 307
cry16Aa	NWYNKGLNDFRTAGQ WVNFNRYRREMTLTVLDIISMFPIYDARLYPT 298
cry19Ba	NTYKSGLESKKQIGWSDFNRYRREMTLSVLDIVALFPLYDTGLYPSKDGKI 291
cry24Aa	EVYTKGLNALRGSTAIDWLEFNSFRRDMTLMVLDLVAIFPNYNPVRYPLS 286
cry25Aa	SYYDDGLAKIRSRGSDGETWWEFNKFRREMTLTVLDLVALYPTHNIKLYPIP 302
cry40Aa1	YWYQAGLNQIKQAGTGADTWAKFNKFRREMTLTVLDIIAIFQTYDFKKYPLP 305
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CTY1CS -PVQQLIREVYTDELIN-ENYQLQSVAQLPFFNMMSSAIRNPHLEDELQVT 394 CTY1AB -VKTELTROUTDELIGVUNDILGTVGTFSSN -ENYIREPLEQVTI 394 CTY3BB -VKTELTROUPTDELITLANIQUEGTFSSN -ERNIKRPHLEPYLRIGIEF 351 CTY4BB -VKTELTROUPTDELISTANIQUEGTFSS -ERNSIKRPHLEPYLQGIEF 351 CTY4BA -VQSELTREIYQVLNPESSPYKYYDFQYQ -BSLTRPHLEFYHDLSINF 368 CTY4BA -TAYQHIKQUIDELKKQLSS -AQHDLDRUVKIIGMINS 36 CTY4BA -TSTQLTREVYTDPVSLSISRPDIGGSFS	_	-TVSQLTREIYTNPVLENFDGSFRGMAQRIEQNIRQPHLMDILMSITI	305
CTYJABA -VKTELTRDVLTDBIFTDNIVQNNLRGGGTFSS		-TVSQLTREIYTNPVLENFDGSFRGSAQGIERSIRSPRLMDILNSIII	305
CTY3BB -VKTELTRDIPTDEIFTINALQEVEGTPSS - IENSIKRPHLEPYLHRIGF 350 CTY3BB -VKTELTRDIPTDEIFTINALQEVEGTPSS - IENSIKRPHLEPYLQGIEF 350 CTY3BB -VKTELTRDIPTDEIFTINALQEVEGTPSS - IENSIKRPHLEPYLQGIEF 350 CTY4BA -VQSELTREIYQVINPESSP - YKYYDFQYQ - IENSIKRPHLEPYLDSINF 368 CTY7AA -TSTQLTREVYTDEVSLSISKPDIGSSS - AQHDLDRUVKIIGMLNS - 306 CTY7AA -TSTQLTREVYTDEVSLSISKPDIGSSS - AQHDLDRUVKIIGMLNS - 306 CTY7AA -TSTQLTREVYTDEVSLSISKPDIGSSS - AQHDLDRUVKIIGMLNS - 350 CTY10AA -VKSELIREVYTNVNSDT - FRITTEL - ENGLTRNPHLFTWINGGRF 354 CTY10AA -VKSELIREVYTNVNSDT - FRITTEL - ENGLTRNPHLFTWINGGRF 349 CTY19BB HYKAELTREIYSDVINGHYVGLMWFYISFEHA - SELVTRRPHLFTWINGGRF 349 CTY19BA - TKISLSKRIYTDVOGTRDSSFGDWINTGRILA NFN - LEERVETDSSELVKWLGGMFT 343 CTY25AA - TOTELSRVVTYDEVGTOSSSFGDWINTGRILA NFN - LEERVETDSSELVKWLGGMFT 343 CTY40AA1 - THVELTREIYDVURGTDSSSFGDWINTGRILA NFN - LEERVETDSSELVKWLGGMFT 358 CTY40AA1 - THVELTREIYDVGYSSGTYSUKKYWTG - AFN - TLEANGTRGPGLVTWLRSIGI 358 CTY41AA TYDVHRG FNYWSGHQITASEVGFSGPEAFELFGNAGNAAPP-VLVSLTGGIG 357 CTY1AA TYDVHRG FNYWSGHQITASEVGFSGPEAFELFGNAGNAAPP-VLVSLTGGIG 357 CTY1CA TYDAHRG TYYMSGHQITASEVGFSGPETFFLYGTMAAPQORIVAGGGG 357 CTY1CA TYDAHRG TYYMSGHQIMSEYGFSGPETFFLYGTMAAPQORIVAGGGG 357 CTY1CA TYDAHRG TYYMSGHQIMSEYGFSGPETFFLYGTMAAPQORIVAGGGG 357 CTY1AA TYDAHRG TYYMSGHQIMSEYGFSGPETFFLYGTMAAPQORIVAGGGG 357 CTY1AA TYSKYAFFHEIQPDGYGND - SFNYWSGNYVETRSIGSNDTITSPFYGNKSSEPVQ NLEFNGEK 406 CTY3BB HTTLLPGYSGKD - SFNYWSGNYVETRSIGSNDTITSPFYGNKSSEPVQ NLEFNGEK 406 CTY3BB HTTLLPGYSGKD - SFNYWSGNYVETRSIGSNTITSPFYGNKSSEPVQ NLEFNGEK 406 CTY3BA TYSKYAFFHEIQPDGYMSHAFNYTHNYSGHTWKRTADSTYTTANTYGTSTTSS-GAYSFHGND 399 CTY4AA TYSKYAFFHEIQPDGYMSAHVYSTRSIGSNTTTTSPFYGNKSSEPVQ - NLEFNGEK 406 CTY1AA TYSKYAFFHEIQPDGYMSAHVYSTRSIGSNTTTTSPFYGNKSSEPVQ - NLEFNGEK 406 CTY1BB TYTHISSD TYTHISGGGNYTTTTTNATGGTTTSTTSPTYDMSYGNYGTSSYIDISNN 394 CTY1AA TYSKYAFFHEIQPGNYTHYSGYGYNGTH TESFASLTTNLDSTLYPTGN 407 CTY1AA TYSKYAFFHEIQPGNYTHYSGYGYNGTH TESFASLTTNLDSTTYPTGN 407 CTY1AA TYSKYAFFHEIQPGNYTYSGYGYNGTH TESFA		- PAGOTLERALIDATIV-LASOTOPACAMANANAN DOEGO TEN YAMANANAN DEL EOMET	344
CTYJABA -VKTELTRDIFTDBIFSINTIQEVGFTFSS			
CTYJABA -VORSELTREIYOVINPESEP YKYYDFOVO EDBLIRRHHLFDULGIEF 343 CTYJAA -TAVOHIKNOIDEIKKOLDS AQHDLDRUKIIGMINS 306 CTYJAA -TAVOHIKNOIDEIKKOLDS AQHDLDRUKIIGMINS 306 CTYJAA -TSTQLTREVYTDYVSLSISNPDIGSES QMENTARTEHLUDLENI 346 CTYJAA -TTAQLTROVYTDPIAFNIVTSTGFCNPWSTHSG-ILFYEVENNVIRPHLFDILSSVEI 354 CTYJAAA -TKIGLTROVYTDPIAFNIVTSTGFCNPWSTHSG-ILFYEVENNVIRPHLFDILSSVEI 354 CTYJAAA -VKSELIREYYTNVNSDT FTTTEL ENGLTRNPTLFTHINGGEF 350 CTYJAAA -VKSELIREYYSDVINGEIYGLWFPYFSFEKA ESLYTRAPHAFTHIKGFFF 342 CTYJAAA -TKISLSKRIYTDPVGCTGSESFGDWTNTGKTLA-NFN-DLERFVDSSELVLGGMTI 343 CTYJS5AA -TGTELSRVYTDPVGCFGNEKSDIFSRINFD YLENRLTRPHAFTHIKGFFF 342 CTYJAAA -TKISLSKRIYTDPVGCTGNEKSDIFSRINFD YLENRLTRPREPFNYLNSVOL 354 CTYJAAA -TTVELTREIYDDVGYSS GTYSWLKYWTG -AFN-TLEANGTRGFGLVTWLRSIGI 356 CTYJAC TTVELSRVYTDPVGCFGNEKSDIFSRINFD YLENRLTRPREPFNYLNSVOL 354 CTYJAAA -TTVELTREIYDDVGYSS GTYSWLKYWTG -AFN-TLEANGTRGFGLVTWLRSIGI 356 CTYJAC TTWFSVG PNYWSGHQITASFVGFGGFEFFFFLGYNGGNAAPP- VLVSLTIGG 356 CTYJAB TTWFSVG YYYWSGHQIMASFVGFGGFEFFFFLGYNGGNAAPP- VLVSLTIGG 356 CTYJAB TRYBYGH MASFVGFGGFEFFFFLGYMGNAAPP- VLVSLTIGG 356 CTYJABAI HTEFOPGYYGND SFNYWSGNYYSTRPSIGSNDITTSFFYGNKSBFVQ NLEFNGEK 406 CTYJABAI HTEFOPGYYGND SFNYWSGNYYSTRPSIGSNDITTSFFYGNKSSEFVQ NLEFNGEK 406 CTYJABA HTRLQPGYSFG SFNYWSGNYYSTRPSIGSNDITTSFFYGNKSEFVQ NLEFNGEK 406 CTYJABA YEKAGT TPNNFFTSHYNMFHYLDNISQ KSSVFG -NHNVTDKLKSLGLATNI 419 CTYJAAA YEKAGT TPNNFFTSHYNMFHYLDNISQ KSSVFG -NHNVTDKLKSLGLATNI 419 CTYJAAA YEKAGT TPNNFFTSHYNMFHYLDNISQ KSSVFG -NHNVTDKLKSLGLATNI 419 CTYJAA YTSKYKARSHEIOPOLFFWSAHKWYSTKSE -QGNLTYTGTIGKTSGYTSS PLAEDRO 407 CTYJAA YTTSKYKARSHEIOPOLFFWSAHKWYSTKSE -QGNLTYTGTIGKTSGYTSS PLAEDRO 407 CTYJAA YTTSKYKARSHEIOPOLFFWSAHKWYSTKSE -QGNLTYTGTIGKTSGYTSS PLAEDRO 407 CTYJAA YTTSKYTAGTYTTTATYGTTTSSENTA PLEEDRO 407 CTYJAA YTTSKYTAGTYTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT		-VKTELTRDVLTDPIVGVNNLKGYGTTFSNIENIIRKPRDFDILDRIQF	350
CTYAAA -VQSELTREYQVINPEESPYKYYDFQVGEDSLTREPHLFTWLDILEM 368 CTYYAAA -TXQLTREVYTDEVSLSINPDIGESFSQMENTATETHLVDYLDELYI 334 CTY8AA -TTAQLTROVTDEVSLSINPDIGESFSQMENTATETHLVDYLDELYI 334 CTY8AA -TTAQLTROVTDEVSLSINPDIGESFSQMENTATETHLVDYLDELYI 334 CTY10AA -VKSELIREYYTNVNSDTFRTITELENGLTREPHLFTHINGGFF 359 CTY16AB CYXFELTREYSDVINGBYGLWFYFSFEKAESLYTREAPHLFTWLKOFFF 349 CTY14BA -TKISLSKRIYTDDVGRTGSFSGDWTNTGKTLA-NFN-DLEREVTDSPSLVKWLGMTI 343 CTY25AA -TKISLSKRIYTDDVGCFGNKSKDIFSRLNFDYLENDLTREPEFFNYLNSVQL 354 CTY40Aa1 -THVELTREIYTDPVGYSSN-SFDWTNTGKTLA-NFN-DLEREVTDSPSLVKWLGMTI 343 CTY40Aa1 -THVELTREIYTDPVGYSSN-SFDWTNTGKTLA-NFN-DLEREVTDSPSLVKWLGMTI 343 CTY1AC -THVELTREIYTDPVGYSSNGTYSWLKYWTG-AFN-TLEANGTRGPGLVTWLRSIGI 358 AXMIOO9 -TTTLGMMSDVKNIWGGHTLVENGNDGSEITHNFGKTDSITPIQYFNANLSVFSIE 417 CTY1AC -TYDHRGYYWSCHQITMSPVGFSGPEFAFFLFGNAGNAAPP-VLVSLTGIG 356 CTY1AA -TTDHFSVG		-VKTELTRDIFTDPIFTLMALQEIGPIF55IENSIKKFHDFDILKGIEF	277
CTYPAA -TSTQLTREVYTDPVSLSISNPDIGESES		-VKIELTRDIFIDPIFSDNILQEIGPIFLSIENSIKKFINDFDILQGIEF	360
cry7Aa -TSTQLTREVYTDPVSLSISNPDIGESPS			
CTYJAGA -VKSELTREVYITDYIAFRIVTSTOFCNPKSTHSG-ILFYEVENNVIRPHLIFDILSVBI 354 CTYJAGA -VKSELTREVYITWNSDT	_	TAVQAT KNQTDET KKQLDS	334
CTY10AB -VKSELIREVYINVNSDT		-TSTQLIKEVIIDPVSLSISNPDIGPSFSQMENIAIKIFNINDIIDBIII	354
CTY16AB EVKTELTREIYSDVINDRIVQCHWPYISFEKA		- I I AQLI RDVI I DELAFINI VI SIGF CNEWSI I I SG-I II I I I I I I I I I I I I I I I I I	350
cry194a HYKAELTREIYSDVINDHVYGLWPYISFEHA		PUVMBI TRETVEDVINGETVELMTDVEGERKAEQLVTRAPHI.FTWI.KGERF	349
CTY24Aa CTY25Aa CTYGELSRVYTDPVGGFGNRKSDIFSRLNFDYLENRLTRPREFNYLNSVQL 354 CTY40Aa1 -THVELTREIYTDPVGYSSGTYSWLKYWTG-AFN-TLEANGTRGPGLVTWLRSIGI 358 AXMIOO9 YTRTLGNMSDVRNIWGGHTLVENGNDGSEITHNFGKTDSITPIQYFNFANLSVFSIE 417 CTY1Aa YTDVHRGFYYWSGHQITASPVGFSGPEFFAPPLYGTMGNAAPPQNRIVAGLQGG 357 CTY1AC YTDAHRGFYYWSGHQITASPVGFSGPEFFAPPLYGTMGNAAPPQNRIVAGLQGG 357 CTY1CA YTDAHRGYYYWSGHQTHASPVGFSGPEFFAPPLYGTMGNAAPPQNRIVAGLQGG 357 CTY1CA YTDAHRGFYYWSGHQTHXISLIGGGNITSPIYGRBANQEPP-RSFTFNGP STYJ1AA YTDHRGFYYWSGHQTHXISLIGGGNITSPIYGRBANQEPP-RSFTFNGP STYJ1AA YSLLSRNSTWGGHKLEPFTTGGTLNISTGGSTNTSINPT			
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axmi009 YTRTLGNMSDVRNIWGGHTLVENGNDGSEITHNFGKTDSITPIQYFNFANLSVFSIE 417 CTY1Aa YTDVHRGFMYWSGHQITASPVGFSGPEFFFFLYGNGGNAAPP-LVUSLTGLG 356 CTY1Ca YTDHRGYYYWSGHQITASPVGFSGPEFFFFLYGNGGNAAPP-LVUSLTGLG 356 CTY1Ca FTDWFSVGRNFYWGGHRVISSLIGGGRITSPIYGREANQEPP-RSFTFNGP- 359 CTY1TA YSLLSRWSMT-QYMMWMGGHKLEFRTIGGTLNISTQGSTMTSINPVTLPFTSRD 397 CTY3Aa1 HTRFOPGYGMDSFMYWSGNYVETRPSIGSNDTITSPFYGNKSSEPVQ-NLEFFNGEK 406 CTY3Ba HTRLPGYGFGKDSFMYWSGNYVETRPSIGSNDTITSPFYGNKSSEPVQ-NLEFFNGEK 406 CTY3Ba HTRLPGYGFGKDSFMYWSGNYVETRPSIGSNDTITSPFYGDKSIEPIQKLSFDGOK 407 CTY3Ba HTRLPGYGFGKDSFMYWSGNYVETRPSIGSNDTITSPFYGDKSTEPVQKLSFDGOK 399 CTY4Aa YEKAQTTPMNFFTSHYNMFHTYLDNISQKSSVFG-NINVTDKLKSLGLATNI 419 CTY6Aa YTRSKYKAFSHEIQPDLFYWSAHKVSFKKSE-QSNLYTTGIYGKTSGYISS-GAYSFHGND 392 CTY9AA YTRSKYKAFSHEIQPDLFYWSAHKVSFKKSE-QSNLYTTGIYGKTSGYISS-GAYSFHGND 392 CTY9AA YTRSKSGITLNND-AYINYWSGHTLKVRRTADSTVTYTANYGRITSEKNSFALEDRD 409 CTY10Aa YTRNSRDILDPYDIFSFTGNOMAFTHTNDDRNIIWGAVHG-NIISQDTSKVFFYNNK 407 CTY16Aa VTNSISYWTFLSGGONKYSYTN-NSSINEGSFRGQDTDYGGTSSTINIPSNS 406 CTY19Ba VTNSINSWFTLSGGENRYFLTHGEGTIY-NGFFLGQDTEYGGTSSYIDISNNS 394 CTY24AA YTGAIDSYRPTSPGDRIGWYGNINAFYHTGRTDVVMFRQTGDTAYEDPSTFISNILYDD 403 CTY25Aa FASTYSNSNNGGVLGRLNKIMFBGGMTASRGDGTTTGTPFSTMDWSYGWGYPRKH 411 CTY4OA1 YNEYVSRYFSGWGTRHYEDYTTGNGNFQRMSGTTSNDLRDISFFNSD 406 AXMI009 SLARIYLGGTEANNYITSQYGVSRVIFNTSNINNVPGSLRYEVPANLFSQ 467 CTY1AA YTRLSSPLYRRFIN-IGINNQOLSVLDGTEFSALTTNLPSTTYRGGTV 406 CTY1AC VYRTLSSTLYRRFFN-IGINNQUESVLDGTEFSALTTNLPSTTYRGGTV 406 CTY1CA VYRTLSSPLYRRFIN-SGWTYFOFFSQVDDCNNETSTOTYDSKRNOGNVS-W 458 CTY3BA VYRTIANTDIAAFPDGKIYFGVTVDFPSQVDDCNNETSTOTYDSKRNOGNVS-W 458 CTY3BA VYRTIANTDIAAFPDGKIYFGVTKVDFSQVDDCNNETSTOTYDSKRNOGNVS-W 458 CTY3BA VYRTIANTDIAAFPDGKIYFGVTKVDFSQVDDCNNETSTOTYDSKRNOGNVS-W 458 CTY3BA VYRTIANTDIAAFPDGKIYFGVTKOPFSQVDDCNNETSTOTYDSKRNNGHVSAQ 453 CTY4BA IFELNSTVANLANYYGAYGYPGGPWFWFWTFNSSEVIFRYSNSTIEN			
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CTY1Aa YTDVHRGFNYWSGHQITASPVGFSGPEFAFDLFGKNAGNAPP-VLVSLTGLG 356 CTY1Ac YTDAHRGYYYWSGHQIMASPVGFSGPEFTFPLYGTMGAAPQGRIVAQLGQG 357 CTY1Ca FTDWFSVG			
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CTY1AC YTDAHRGYYYWSGHQIMASPVGFSGPETTFLYGTMGNAAPQQRIVAQLGQG 357 CTY1CA FTDWFSVGRNFYWGGHRVISSLIGGGNITSPIYGREANQEPP-RSFTFNGP 359 CTY11A YSLLSRWSNT-QYMNMWGGHKLEFRTIGGTLNISTQGSTNTSINPVTLPFTSRD 397 CTY3BA HTRLPGYSGKDSFNYWSGNYVSTRPSIGSNDIITSPFYGKSSEPVQNLEFNGEK 406 CTY3BB HTRLPGYSGKDSFNYWSGNYVETRPSIGSSKTTISPFYGDKSTEPVQKLSFDGQK 407 CTY4AA YEKAQTTPNNFFTSHYNMFHYTLDNISQKSSVFG-NHNVTDKLKSLGLATNI 419 CTY6AA	•	YTDVHRGFNYWSGHOITASPVGFSGPEFAFPLFGNAGNAAPP-VLVSLTGLG	356
CTY1Ca FTDWFSVGRNFYWGGHRVISSLIG-GGNITSPIYGREANQEPP-RSFTRMGP-359 CTY1Ia YSLLSRWSNT-QYMNMWGGHKLEFRTIGGTLNISTQGSTNTSINPVTLPFTSRD 397 CTY3Ba1 HTRPGPGYGNDSFNYWSGNYVETRPSIGSNDITTSPFYGNKSSEPVQKLSFDGGK 406 CTY3Ba HTRLPGYGKGNSFNYWSGNYVETRPSIGSNDITTSPFYGNKSEPVQKLSFDGGK 399 CTY3Bb HTRLQPGYFGKDSFNYWSGNYVETRPSIGSSKTITSPFYGDKSTEPVQKLSFDGGK 399 CTY4Aa YEKAQTTPNNFTSHYNMFHYTLDNISQKSSYFG-NHNVTDKLKSLGLATNI 419 CTY6Aa			
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CTY3Bb HTRLQPGYFGKD - SFNYWSGNYVETRPSIGSSKTITSPFYGDKSTEPVQ- KLSFDGQK 399 CTY4Aa YEKAQTTPNNFFTSHYNNFHYTLDNISQ KSSVFG-NINVTDKLKSLGLATNI 419 CTY6Aa		HTRLRPGYSGKDSFNYWSGNYVETRPSIGSNDTITSPFYGDKSIEPIQKLSFDGQK	407
CTY4Aa YEKAQTTPNNFFTSHYNMFHYTLDNISQKSSVFG-NHNVTDKLKSLGLATNI 419 CTY6Aa		HTRLOPGYFGKDSFNYWSGNYVETRPSIGSSKTITSPFYGDKSTEPVQKLSFDGQK	399
CTYPAA YTSKYKAFSHEIQPDLFYWSAHKVSFKKSE-QSNLYTTGIYGKTSGYISS-GAYSFHGND 392 CTYBAA NTSRGGITLNND-AYINYWSGHTLKYRTADSTVTYTANYGRITSEKMSFALEDRD 409 CTY10AA YTRNSRDILDPYDIFSFTGNQMAFTHTNDDRNIIWGAVHG-NIISQDTSKVFPFYRNK 407 CTY16AA VTNSISYWTFLSGGQNKYSYTN-NSSINEGSFRGQDTDYGGTSSTINIPSNS 400 CTY19BA VTNSINSWTFLSGGENRYFLTHGEGTIY-NCPFLGQDTEYGGTSSYIDISNNS 394 CTY24AA YTGAIDSYPPTSPGDRIGWWYGNINAFYHTGRTDVVMFRQTGDTAYEDFSTFISNILYDD 403 CTY25AA FASTVSNSNNGEVLRGNLNKIMFEGGWTASRSGDGVTTGTPFSTNDWSYGWGYPRKH 411 CTY40Aa1 YNEYVSRYFSGWVGTRHYEDYTTGNGNFQRMSGTTSNDLRDISFPNSD 406 AXMIOO9 SLARIYLGGTEANNYITSQYGVSRVIFNTSNINNVPGSLRYEVPANLPSQ 467 CTY1AA IFRTLSSPLYRRIILGSGPNQELFVLDGTEFAYG-TSSNLPSAVYRKSGTV 407 CTY1CA VYRTLSSTLYRRPFFN-IGINNQQLSVLDGTEFAYG-TSSNLPSAVYRKSGTV 407 CTY1CA VFRLSNPTLRLLQQPWPAPPFNLRGVEGVEFSTPTNSFTTYRGRGTV 406 CTY1IA VYRTLSAGLNLFLTQFVNGVPRVDFHWKFVTHPIASDNFYYPGYAGIGTQLQ 450 CTY1AA VYRAVANTNLAVWPS-AVYSGVTKVEFSQYNDQKNETSTQTYDSKRNNGAVS-W 458 CTY3BA VYRTIANTDIAAFPDGKIYFGVTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQ 461 CTY3BB VYRTIANTDAAPPDGKIYFGVTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQ 453 CTY4AA YIFLLNVISLDNKY-LNDYNNISKMDFFITNGTRLLEKELTAGSGQITYDVNKNIFGLPI 478 CTY6AA IDNLYSQGGEAIKVFQKLQGIWATIGAQIEN	_	YEKAOTTPNNFFTSHYNMFHYTLDNISQKSSVFG-NHNVTDKLKSLGLATNI	419
CTY7AA YTSKYKAFSHEIQPDLFYWSAHKVSFKKSE-QSNLYTTGIYGKTSGYISS-GAYSFHGND 392 CTY8AA NTSRGGITLNND-AYINYWSGHTLKYRRTADSTVTYTANYGRITSEKNSFALEDRD 409 CTY10AA YTRNSRDILDPYDIFSFTGNQMAFTHTNDDRNIIWGAVHG-NIISQDTSKVFPFYRNK 407 CTY16AA VTNSISYWTFLSGGQNKYSYTN-NSSINESSFRGQDTDYGGTSSTINIPSNS 400 CTY19BA VTNSINSWTFLSGGENRYFLTHGEGTIYNGPFLGQDTEYGGTSSYIDISNNS 394 CTY24AA YTGAIDSYRPTSPGDRIGWYWGNINAFYHTGRTDVVMFRQTGDTAYEDPSTFISNILYDD 403 CTY25AA FASTVSNSNNGEVLRGNLNKIMFEGGWTASRSGDGVTTGTPFSTMDWSYGWGYPRKH 411 CTY40Aa1 YNEYVSRYFSGWVGTRHYEDYTTGNGNFQRMSGTTSNDLRDISFPNSD 406 AXMIOO9 SLARIYLGGTEANNYITSQYGVSRVIFNTSNINNVPGSLRYEVPANLPSQ 467 CTY1AA IFRTLSSPLYRRIILGSGPNNQELFVLDGTEFSFASLTTNLPSTIYRQRGTV 408 CTY1AC VYRTLSSTLYRRPFN-IGINNQQLSVLDGTEFAYG-TSSNLPSAVYRKSGTV 407 CTY1CA VFRTLSNP-TLRLLQQPWPAPPFNLRGVEGVEFSTPTNSFTYRGRGTV 406 CTY1A VYRTESLAGINLFLTQPVNGVPRVDFHWKFVTHPIASDNFYYPGYAGIG-TQLQ 450 CTY3AA1 VYRAVANTNLAVWPS-AVYSGVTKVEFSQYNDQKNETSTQTYDSKRNVGAVS-W 458 CTY3BB VYRTIANTDIAAFPDGKIYFGVTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQ 453 CTY3BB VYRTIANTDIAAFPDGKIYFGVTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQ 453 CTY4AA YIFLLNVISLDNKY-LNDYNNISKMDFFITNGTRLLEKELTAGSGQITYDVNKNIFGLPI 478 CTY6AA IDNLYSQGQEAIKVFQKLQGIWATIGAQIENLRT 344 CTY7AA IYRTLAAPSVVVYPYTQNYGVEQVEFYGVKGTSSTTAYLYSKTHTALQCCTQVY 464 CTY10AA PIDKVEIVRHREYSDIIYEMIFFSNSSEVFRYSSNSTIENN 448 CTY16AA YYNLWTENYYYPYDQNYGVEGWFFYGVKGTSSTTAYLYSKTHTALQCCTQVY 464 CTY10AA PIDKVEIVRHREYSDIIYEMIFFSNSSEVFRYSSNSTIENN 448 CTY16AA YYNLWTENYYYPYDQNYITKNNFSVTDNNSSEVFRYSSNSTIENN 448 CTY16AA YYNLWTENYYYPYDQNYITKNFSVTDNNSSEVFRYSSNSTIENN 448 CTY16AA YYNLWTENYYYPYDQNYITKNFSVTDNNSSEVFRYSSNSTIENN 448 CTY16AA YYNLWTENYYYPYDQNYITKNFSVTDNNSSEVFRYSSNSTIENN 448 CTY16AA YYNLWTENYYYPYDDPNNITKNFSVTDNNSSEVFRYSSNSTIENN 448 CTY16AA YYNLWTENYYPYDDPNNITKNFSVTDNN			
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CTY16Aa YTRNSRDILDPYDIFSFTGNQMAFTHTNDDRNIIWGAVHG-NIISQDTSKVFPFYRNK 407 CTY16Aa VTNSISYWTFLSGGQNKYSYTN-NSSINEGSFRGQDTDYGGTSSTINIPSNS 400 CTY19Ba VTNSINSWTFLSGGENRYFLTHGEGTIY-NGPFLGQDTEYGGTSSYIDISNNS 394 CTY24Aa YTGAIDSYRPTSPGDRIGVWYGNINAFYHTGRTTDVVMFRQTGDTAYEDPSTFISNILYDD 403 CTY25Aa FASTVSNSNNGEVLRGNLNKIMFEGGWTASRSGDGVTTGTPFSTMDWSYGWGYPRKH 411 CTY40Aa1 YNEYVSRYFSGWVGTRHYEDYTTGNGNFQRMSGTTSNDLRDISFPNSD 406 axmi009 SLARIYLGGTEANNYITSQYGVSRVIFNTSNINNVPGSLRYEVPANLPSQ 467 CTY1Aa IFRTLSSPLYRRIILGSGPNNQELFVLDGTEFSFASLTTNLPSTIYRQRGTV 408 CTY1AC VYRTLSSTLYRRPFN-IGINNQQLSVLDGTEFAYG-TSSNLPSAVYRKSGTV 407 CTY1Ca VFRTLSNPTLRLLQQPWPAPPFNLRGVEGVEFSTPTNSFTYRGRGTV 406 CTY11a VYRTESLAGLNLFLTQPVNGVPRVDFHWKFVTHPIASDNFYYPGYAGIGTQLQ 450 CTY3Aa1 VYRAVANTNLAVWPS-AVYSGVTKVEFSQYNDQKNETSTQTYDSKRNVGAVS-W 458 CTY3BA VYRTIANTDIAAFPDGKIYFGVTKVDFSQYDDQKNETSTQTYDSKRNNGAVS-W 458 CTY3BB VYRTIANTDIAAFPDGKIYFGVTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQ 453 CTY4Aa YIFLLNVISLDNKY-LNDYNNISKMDFFITNGTRLLEKELTAGSGQITYDVNKNIFGLPI 478 CTY6Aa IDNLYSQGQEAIKVFQKLQGIWATIGAQIENLRT 344 CTY7AA IYRTLAAPSVVVYPYTQNYGVECVEFYGVKGHVHYRGDNKYDLTY 437 CTY8Aa IFEINSTVANLANYYQKAYGVPGSWFHMVKRGTSSTTAYLYSKTHTALQGCTQVY 464 CTY10Aa PIDKVEIVRHREYSDIIYEMIFFSNSSEVFRYSSNSTIENN 448 CTY10Aa PIDKVEIVRHREYSDIIYEMIFFSN		NTSRGGITLNND-AYINYWSGHTLKYRRTADSTVTYTANYGRITSEKNSFALEDRD	409
CTY16Aa VTNSISYWTFLSGGQNKYSYTN-NSSINEGSFRGQDTDYGGTSSTINIPSNS 400 CTY19BA VTNSINSWTFLSGGENRYFLTHGEGTIYNGPFLGQDTEYGGTSSYIDISNNS 394 CTY24Aa YTGAIDSYRPTSPGDRIGVWYGNINAFYHTGRTDVVMFRQTGDTAYEDPSTFISNILYDD 403 CTY25Aa FASTVSNSNNGEVLRGNLNKIMFEGGWTASRSGDGVTTGTPFSTMDWSYGWGYPRKH 411 CTY40Aa1 YNEYVSRYFSGWVGTRHYEDYTTGNGNFQRMSGTTSNDLRDISFPNSD 406 axmi009 SLARIYLGGTEANNYITSQYGVSRVIFNTSNINNVPGSLRYEVPANLPSQ 467 CTY1Aa IFRTLSSPLYRRIILGSGPNNQELFVLDGTEFSFASLTTNLPSTIYRQRGTV 408 CTY1AC VYRTLSSTLYRRPFN-IGINNQQLSVLDGTEFAYG-TSSNLPSAVYRKSGTV 407 CTY1Ca VFRTLSNPTLRLLQQPWPAPPFNLRGVEGVEFSTPTNSFTYRGRGTV 406 CTY1IA VYRTESLAGLNLFLTQPVNGVPRVDFHWKFVTHPIASDNFYYPGYAGIGTQLQ 450 CTY3Aa1 VYRAVANTNLAVWPS-AVYSGVTKVEFSQYNDQKNETSTQTYDSKRNVGAVS-W 458 CTY3BA VYRTIANTDIAAFPDGKIYFGVTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQ 461 CTY3BB VYRTIANTDVAAWPNGKVYLGVTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQ 462 CTY3BB VYRTIANTDVAAWPNGKVYLGVTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQ 463 CTY4Aa YIFLLNVISLDNKY-LNDYNNISKMDFFITNGTRLLEKELTAGSGQITYDVNKNIFGLPI 478 CTY6Aa IDNLYSQGGEAIKVFÇKLQGIWATIGAQIEN		YTRNSRDILDPYDIFSFTGNQMAFTHTNDDRNIIWGAVHG-NIISQDTSKVFPFYRNK	407
CTY19BA CTY24AA CTY24AA CTY24AA CTY25AA CTY25AA CTY25AA CTY25AA CTY40AA1 SLARIYLGGTEANNYITSQYGVSRVIFNTSNINNVPGSLRYEVPANLPSQ CTY1AA CTY1AA CTY1AA SLARIYLGGTEANNYITSQYGVSRVIFNTSNINNVPGSLRYEVPANLPSQ CTY1AA CTY1AA CTY1AC CTY1AC CTY1AC CTY1CA CTY1CA CTY1CA CTY1AC CTY1CA CTY1CA CTY1AC CTY1AC CTY1AC CTY1AC CTY1AC CTY1AC CTY1AC CTY1AC CTY1CA CTY3AA1 CTY3AA CTY1CA CTY1C		VTNSISYWTFLSGGQNKYSYTN-NSSINEGSFRGQDTDYGGTSSTINIPSNS	400
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C:Y7Aa IYRTLAAPSVVVYPYTQNYGVEQVEFYGVKGHVHYRGDNKYDLTY 437 C:Y8Aa IFEINSTVANLANYYQKAYGVPGSWFHMVKRGTSSTTAYLYSKTHTALQGCTQVY 464 C:Y10Aa PIDKVEIVRHREYSDIIYEMIFFSNSSEVFRYSSNSTIENN 448 C:Y16Aa YVYNLWTENYEYIYPWGDPVNITKMNFSVTDNNSSKELIYGAHRTNKPVVRT 452 C:Y19Ba SIYNLWTKNYEWIYPWTDPVNITKINFSITDNSNSSESIYGAERMNKPTVRT 446 C:Y24Aa IYKLDLRAAAVSTIQGAMDTTFGVSSSRFFDIRGRNQLYQS-NKPYPSL 451 C:Y25Aa YAEITSRSQALPGLNNSIHVIVGIDSFRAIGPGGOGDHTFSLPGGDMYD 460	_		
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cry25Aa YAEITSRSQALPGLNNSIHVIVGIDSFRAIGPGGQGDHTFSLPGGDMYD 460		SINDWIKNYEWIYPWIDPVNITKINFSITDNSNSSESIIGAEKMNKPIVKI	770 161
		TIVDDEWAYAAAAQLIAAAMDIILAAAQQQQAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	451
CIY40MAI TEATEDAMININDVGEINMAREIRVDAMEFDEDIAFIIHIDAGNGGHDDH 455		TEALEGAN INNITAGELMYD DEADAGOD EEGEGETTTT ZELAI'AD JCWGGI'GGW	455
	CIY4UAAI	TENTERMINITAGETMWCETTVARWERREDIWETTITIDWGMOGDDDM	133

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axmi009	TILSELPGKDKPRPNAGDFSHRLSYISNFDARRSS-SGGIVSLLTFGWAHTSMDRNNRLE	526
cry1Aa	DSLDVIPPQDNSVPPRAGFSHRLSHVTMLSQAAGAVYTLRAPTFSWQHRSAEFNNIIP	466
crylAc	DSLDEIPPQNNNVPPRQGFSHRLSHVSMFRSGFSNSSVSIIRAPMFSWIHRSAEFNNIIA	
cry1Ca	DSLTELPPEDNSVPPREGYSHRLCHATFVQRSGTPFLTTGVVFSWTHRSATLTNTID	
cry1Ia	DSENELPPEATGOPNYESYSHRLSHIGLISASHVK-ALVYSWTHRSADRTNTIE	
cry3Aa1	DSIDQLPPETTDEPLEKGYSHQLNYVMCFLMQGSRGTIPVLTWTHKSVDFFNMID	
cry3Ba	DSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRRGTIPFFTWTHRSVDFFNTID	
cry3Bb	DSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRRGTIPFFTWTHRSVDFFNTID	
cry4Aa	LKRRENOGNPTLFPTYDNYSHILSFIKSLSIPATYKTOVYTFAWTHSSVDPKNTIY	
cry6Aa	TSLQEVQDSDDADEIQIELEDASDAWLVVAQEARDFTLNAYSTNSRQNLP	
cry7Aa	DSIDQLPPDGEPIHEKYTHRLCHATAIFKSTPDYDNATIPIFSWTHRSAEYYNRIY	
cry8Aa	ESSDEIPLDRT-VPVAESYSHRLSHITSHSFSKNG-SAYYGSFPVFVWTHTSADLNNTIY	
cry10Aa	YKRTDSYMIPKQTWKNEEYGHTLSYIKTDNYIFSVVRERRRVAFSWTHTSVDFQNTID	
cry16Aa	DFDFLTNKEGTELAKYNDYNHILSYMLINGETFGQKRHGYSFAFTHSSVDPNNTIA	
cry19Ba	DFNFLLNRAGNGPTTYNDYNHILSYMLINGETFGQKRHGYSFAFTHSSVDRYNTIV	
	PITITFPGEESSEGNANDYSHLLCDVKILQEDSSNICEGRSSLLSHAWTHASLDRNNTIL	
cry24Aa	CGKVQINPLEDYRNSDHWISDMMTINQSVQLASNPTQTFAFSALSLGWHHSSAGNRNVYV	
cry25Aa		
cry40Aa1	TITSKLPGIKNPEPSYRDYSHRLSNAACVGAGNSRINVYGWTHTSMSKYNLIY * .	508
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axmi009	PDKITQIDAVKGWGGNIGFVIPGPTGGNLVKVSDSWHSLKVQAPQRQ	
crylAa	SSQITQIPLTKSTNLGSGTSVVKGPGFTGGDILRRTSPGQISTLRVNITAPLS	
crylAc	SDSITQIPAVKGNFLFNG-SVISGPGFTGGDLVRLNSSGNNIQNRGYIEVPIHFPSTS	
cry1Ca	PERINQIPLVKGFRVWGGTSVITGPGFTGGDILRRNTFGDFVSLQVNINSPIT	
crylIa	PNSITQIPLVKAFNLSSGAAVVRGPGFTGGDILRRTNTGTFGDIRVNINPPFA	
cry3Aa1	SKKITQLPLVKAYKLQSGASVVAGPRFTGGDIIQCTENGSAATIYVTP-DVSYS	
cry3Ba	AEKITQLPVVKAYALSSGASIIEGPGFTGGNLLFLKESSNSIAKFKVTLNSAALL	
cry3Bb	AEKITQLPVVKAYALSSGASIIEGPGFTGGNLLFLKESSNSIAKFKVTLNSAALL	
cry4Aa	THLTTQIPAVKANSLGTASKVVQGPGHTGGDLIDFKDHFKITCQHSN-FQQ	
cry6Aa	INVISDSCNCSTTNMTSNQYSNPTTNMTS	
cry7Aa	PNKITKIPAVKMYKLDDPSTVVKGPGFTGGDLVKRGSTGYIGDIKATVNSPLS	
cry8Aa	SDKITQIPAVKGDMLYLGGSVVQGPGFTGGDILKRTNPSILGTFAVTVNGSLS	
cry10Aa	LDNITQIHALKALKVSSDSKIVKGPGHTGGDLVILKDSMDFRVRFLKNVSR	
cry16Aa	ANKITQIPVVKASSINGSISIEKGPGFTGGDLVKMRADSGLTMRFKAELLD	
cry19Ba	PDKIVQIPAVKTNLVGANIIKGPGHTGGDLLKLEYERFLSLRIK-LIAS	
cry24Aa	PDEITQIPAVTAYELRGNSSVVAGPGSTGGDLVKMSYHSVWSFKVY-CSEL	
cry25Aa	YDKITQIPATKTVREHPMIKGPGFTGGDLADLSSNSDILQYDLRSDYDDR-LTED	
cry40Aa1	PDKITQIPAVKAFDISDTGPGQVIAGPGHTGGNVVSLPYYSRLKIRLIPASTN	201
	* •	
axmi009	TSYRIRLRYACLVTHGDAIFVEHSGSSHIVSFFDCSNSSGRPSNTLLESDFRYID	620
	QRYRVRIRYASTTNLQFHTSIDGRPINQGNFSATMSSGSNLQSGSFRTVGFTT	
cry1Aa	TRYRVRYASVTPIHLNVNWGNSSIFSNTVPATATSLDNLQSGFRIVGFII	
cry1Ac		
cry1Ca	QRYRLRFRYASSRDARVIVLTGAASTGVGGQVSVNMPLQKTMEIGENLTSRTFRYTDFSN	
cry1Ia	QRYRVRIRYASTTDLQFHTSINGKAINQGNFSATMNRGEDLDYKTFRTVGFTT	
cry3Aa1	QKYRARIHYASTSQITFTLSLDGAPFNQYYFDKTINKGDTLTYNSFNLASFST.	
cry3Ba	QRYRVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNIDGDLTYQTFDFATSNS	
cry3Bb	QRYRVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNKDDDLTYQTFDLATTNS	
cry4Aa	SYF-IRIRYASNGSANTRAVINLSIPGVAELGMALNPTFSGTDYTNLKYKDFQYLE	
cry6Aa	NQYMISHEYTSLPNNFMLSRNSNLEYKCPENNFMIYWYNNSDWYN	
cry7Aa	QKYRVRYATNVSGQFNVYINDKITLQTKFQNTVETIGEGKDLTYGSFGYIEYST	
cry8Aa	QRYRVRIRYASTTDFEFTLYLG-DTIEKNRFNKTMDNGASLTYETFKFASFIT	
cry10Aa	QYQ-VRIRYATNAPKTTVFLTGIDTISVELPSTTSRQNPNATDLTYADFGYVTFPR	
cry16Aa	KKYRVRIRYKCNYSSKLILRKWKGEGYIQQQIHNISPTYGAFSYLESFTITT	
cry19Ba	MTFRIRIRYASNISGQMMINIGYQNPTYFNIIPTTSRDYTELKFEDFQLVD	
cry24Aa	KNYRVRIRYASHGNCQFLMKRWPSTGVAPRQWARHNVQGTFSNSMRYEAFKYLD	
cry25Aa	VPFRIRIRCASIGVSTISVDNWGSSSPQVTVASTAASLDTLKYESFQYVS	
cry40Aa1	KNYLVRVRYTSTSNGRLLVERWSPSSIINSYFFLPSTGPGDSFGYVD	608

axmi009	VPGIFTPSINPLIRYRTQSFGTHAIDKFEFIPLNTFPNQSLEKREQEVN 677	1
crylAa	PFNFSNGSSVFTLSAHVFNSGNEVYIDRIEFVPAEVTFEAEYDLERAQKAVN 624	Ł
crylAc	AFTSSLGNIVGVRNFSGTAGVIIDRFEFIPVTATLEAEYNLERAQKAVN 626	
cry1Ca	PFSFRANPDIIGISEQPLFGAGSISSGELYIDKIEIILADATFEAESDLERAQKAVN 633	
crylIa	PFSFLDVQSTFTIGAWNFSSGNEVYIDRIEFVPVEVTYEAEYDFEKAQEKVT 661	L
cry3Aa1	PFELSGNNLQIGVTGLSAGDKVYIDKIEFIPVN 652	2
cry3Ba	NMGFSGDTNDFIIGAESFVSNEKIYIDKIEFIPVQ 659)
cry3Bb	NMGFSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652	?
cry4Aa	FSNEVKFAPNQNISLVFNRSD-VYTNTTVLIDKIEFLPITRSIREDREKQKLETVQQIIN 698	
cry6Aa	NSDWYNN 475	•
cry7Aa	TIQFPDEHPKITLHLSDLSNNSSFYVDSIEFIPVDVNYAEKEKLEKAQKAVN 654	
cry8Aa	DFQFRETQDKILLSMGDFSSGQEVYIDRIEFIPVDETYEAEQDLEAAKKAVN 679	
cry10Aa	TVPNKTFEGEDTLLMTLYGTP-NHS-YNIYIDKIEFIPITQSVLDYTEKQNIEKTQKIVN 670	
cry16Aa	TENIFOLTMEVTYPYGRQFVE-DIPSLILDKIEFLPTN 648	
cry19Ba	TSYIYSGGPSISSNTLWLD-NFSNGPVIIDKIEFIPLGITLNQAQGYDTYDQNANGMY 658	
cry24Aa	IFTITPEENNFAFTIDLESGGDLFIDKIEFIPVSGSAFEYEGKQNIEKTQKAVN 669	
cry25Aa	IPGNYYFDSAPRIRLLRQPGRLLVDRIEIIPVNFFPLSEQENKSVD 670	
cry40Aa1	TLVTTFNQPGVEIIIQN-LDTPINVDKVEFIPVNSTALEYEGKQSLEKAQDVVN 661	L
axmi009	DLFIN 682	_
cry1Aa	ELFTSSNQIGLKTDVTDYHIDQVSNLVECLSDEFCLDEKQELSEKVKHAKRLSDERNLLQ 684	
crylAc	ALFTSTNQLGLKTNVTDYHIDQVSNLVTYLSDEFCLDEKRELSEKVKHAKRLSDERNLLQ 686	
cry1Ca	ALFTSSNQIGLKTDVTDYHIDQVSNLVDCLSDEFCLDEKRELSEKVKHAKRLSDERNLLQ 693	
cry1Ia	ALFTSTNPRGLKTDVKDYHIDQVSNLVESLSDEFYLDEKRELFEIVKYAKQLHIERNM 719)
cry3Aa1		
cry3Ba		
cry3Bb		
cry4Aa	TFYANPIKNTLQSELTDYDIDQAANLVECISEELYPKEKMLLLDEVKNAKQLSQSRNVLQ 758	3
cry6Aa		
cry7Aa	TLFTE-GRNALQKDVTDYKVDQVSILVDCISGDLYPNEKRELQNLVKYAKRLSYSRNLLL 713	š
cry8Aa	ALFTNTKD-GLRPGVTDYEVNQAANLVECLSDDLYPNEKRLLFDAVREAKRLSGARNLLQ 738	3
cry10Aa	DLFVN 675	5
-	DEL VII	
cry16Aa		
cry16Aa cry19Ba	HONYSNSGYNYNOEYNTYYOSYNN682	
•	HQNYSNSGYNYNQEYNTYYQSYNN682	1
cry19Ba	HQNYSNSGYNYNQEYNTYYQSYNN	1
cry19Ba cry24Aa	HQNYSNSGYNYNQEYNTYYQSYNN682	1